TWO-SHAFT HINGE EQUIPPED WITH A ROTATION LIMITING MECHANISM

ABSTRACT

In a portable telephone, laptop personal computer or remote control in which reduced size, reduced weight and new functionality are required, to provide a A two-shaft hinge component equipped with a rotation limiting mechanism in which a construction is adopted that makes possible a rotation limiting mechanism with increased durability, reduced size and lighter weight.

--- A torque unit is constituted by a fixed cam and a rotary cam being in coaxial abutment with a rotary shaft 2-and an opening/closing shaft-3, in a hinge of two-shaft construction in which a rotary shaft 2-passes through an opening/closing shaft-3, sliding frictional torque and a click action being generated during rotation and opening/closing operation by an abutting cam surface. The torque unit is constructed independently on the rotary shaft and the opening/closing shaft and, in addition, there is provided a rotation limiting mechanism whereby the rotary action of the rotary shaft is subjected to limitation in accordance with the opening/closing angle of the opening/closing shaft. With the two-shaft hinge according to the present invention, a reduction in size and weight is achieved by reducing the number of components, a stable torque and click action are generated, durability is improved and additional space is secured by a concentrated arrangement of the components.